

TITLE 8:
LOGGING AND SAWMILL SAFETY ORDERS
Chapter 4, Subchapter 13, Articles 1, 1.5, 2, 4, 5, 7, and 12;
Sections 6249, 6251, 6260, 6262, 6270, 6272, 6281, 6282, 6283, 6290, 6295, 6328, 6329,
and Appendix A

Amendments to the Logging and Sawmill Safety Orders with regard to
Logging Operations

Heard at the February 22, 2001, Public Hearing
Adopted on September 20, 2001
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Effective November 23, 2001

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

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Amend Section 6249 to add or amend the following definitions in alphabetical order:

§6249. Definitions and Glossary.

Donkey (Yarder). ~~Short for donkey engine.~~ Steam, diesel, or gasoline engine, equipped with drum and cable for moving or transporting logs, as in loading or yarding.

Equivalent. Alternative design or features which will provide an equal degree or factor of safety.

Fair-lead. Device used to guide a rope coming from any direction to a drum or sheave without fouling.

Gin Pole. ~~Raised pole properly guyed and used to support lines and blocks for loading logs.~~

Guarded. Protected by a cover, shield, rail, or other device, or by location, to reduce the probability of injury.

Gut Wrapper. Intermediate wrapper for an individual tier of logs.

Guylines. Ropes used to stay or support spar trees, booms, etc.

~~Hay Rack or McLean Boom.~~ ~~Type of two timber loading boom using two tongs.~~

Head Tree. Tree where loading and/or yarding takes place.

Landing Chute or Landing Slip. The head of the skid trail or yarder road where the logs are temporarily placed before handling, loading and hauling.

~~Speeder.~~ ~~Utility car used for rail transportation of supplies and workers.~~

Twister. A line (usually small diameter wire rope “haywire”) that provides additional support for a tailhold stump, guyline stump, or tree used for anchorage in cable logging systems. This is done by connecting the tailhold or tree to another stump or tree opposite by wrapping the two with a line. This line is then tightened by placing a piece of large-diameter limb between the wrappings and twisting them together.

~~Whistle Punk.~~ ~~Worker who relays signals to the equipment operator.~~

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 6251 to read:

§6251. First Aid.

(a) First-aid material shall be provided and personnel made available for care of injured employees. Means of communication such as an operable two-way radio, phone, or radio/phone shall be established provided, and the names, addresses, and the telephone numbers of physicians, hospitals, and ambulances to be called shall be made readily available at all operations. Citizens' band radios are permitted only as a secondary means of communication.

(b) All necessary first-aid materials shall be provided at ~~every~~ any active camp, mill, log landing, or other active operation ~~as may be necessary~~, and shall consist in part of a rigid stretcher, 2 acceptable blankets (1 blanket for warmth and 1 waterproof blanket), and a first-aid kit. The blankets and the contents of the first-aid kit shall be kept in dustproof and moisture proof containers.

(c) Crew vehicles shall carry a first-aid kit. First-aid kits shall be kept fully supplied.

(d) First-aid training shall be provided as follows:

(1) At fixed sawmill facilities, in the absence of an infirmary, clinic, or hospital, in proximity to the workplace, which is used for the treatment of all injured employees, a person or persons shall be certified in, and readily accessible to render, first aid. These ~~In addition, supervisors or persons in charge of at a work site shall be required to have a valid first-aid general knowledge concerning the stoppage of bleeding, care and splinting of fractures, dressing of wounds, and treatment of shock and shall be trained in cardiopulmonary resuscitation (CPR) certificate.~~ Standards for first-aid and CPR training shall follow the principles of the American Heart Association, ~~or~~ the American Red Cross, or other nationally recognized agency.

NOTE: The word "proximity" as used in this subsection means that emergency medical response time or medical treatment for injured employees can be provided within 15 minutes.

(2) ~~At operations employing 5 or more employees,~~ At logging operations and portable sawmill operations, employers shall arrange to have each employees trained so they have a valid first-aid and CPR certificate issued by the American Red Cross, the Mine Safety and Health Administration ~~American Heart Association,~~ or other nationally recognized agency. Provided a person or persons having a valid first aid and CPR certificate are readily accessible at the work site to render first aid, new employees shall receive the required training within six months from the date of hire.

~~NOTE: Approximately 1 out of every 5 employees should receive this training. In computing the number of employees for (d)(2), clerical workers need not be included.~~

EXCEPTION: Log truck drivers are not required to receive first-aid and CPR training if they are not involved with falling, yarding, skidding, or processing logs.

(e) Adequate transportation to medical care shall be ~~provided for immediate use~~ arranged and made available for injured persons at all camps, mills, log landings, or other operations. Such transportation shall be of a nature to render comfort to the injured. Employees requiring the use of a ~~tourniquet or~~ a stretcher or whose injuries are of an otherwise serious nature shall be accompanied to medical attention by a competent person in addition to the vehicle driver.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 6260 to read:

§6260. Riding Rigging Equipment.

Employees are prohibited from riding logs and any rigging; or rigging equipment ~~except where the controlled lifting or lowering of employees will provide a safe means of access and egress.~~

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 6262 to read:

§6262. Fuels, Oil and Other Flammable Liquids.

(a) Flammable liquids shall be stored and transported in closed ~~metal~~ containers that are Underwriters Laboratories Inc. (UL) listed or classified, Factory Mutual (FM) approved, or other approved safety cans flammable liquid containers properly marked.

(b) An approved pump designed for the fuel to be used shall be provided to service the fuel tanks of all equipment, unless fueling is done by gravity flow with a metal-to-metal contact between the container and the fuel tank. When a hose is used, it shall be of a type designed to handle fuels.

(c) No gasoline or LPG equipment shall be fueled when the engine is running, except when refueling by a vacuum refueling system in connection with the engine.

(d) Open lights, open flames, sparking or arcing equipment, except that which is an integral part of automotive equipment, shall not be used near fuel storage tanks or internal-combustion engine equipment while they are being filled or fueled.

(e) Smoking shall not be permitted on any vehicle carrying flammable liquids, unless such liquids are in the fuel tank or a safety container outside the passenger compartment.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 6270 to read:

§6270. Signal Systems.

General.

- (a) Standard yarding system whistle signals or an approved alternate communication system shall be used at cable logging operations.
- (b) When whistles are used, whistle signals contained in Appendix A shall be used.
- (c) Additional signals may be adopted for an unusual or new situation not covered in the standard signals, and shall be used only for that specific situation.
- (d) All employees shall be informed of the new signals.
- (e) The list of standard signals and alternate signal system in use shall be ~~posted on~~ available in the yarder cab and shall be posted ~~other places~~ or made available to the ~~where~~ crews ~~congregate~~.

~~(p) The use of a jerk wire whistle system for any type of yarding operation is prohibited.~~

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 6272 to read:

§6272. Radio Signal Systems.

When space transmission of radio signals, including voice, is used under and in accord with authorization granted by the Federal Communications Commission to initiate any whistle, horn, bell, or other audible signaling device or voice conveyance; or when such transmission of radio signals, including voice, is used to activate or control any machine, material handling device, or other equipment hazardous to workers; the following shall apply:

~~(a) Registration of tone frequency and area of use for each radio unit used in the control and activation of any signal, machine, or equipment must be obtained from the Division of Occupational Safety and Health, by an employer, prior to placing the unit in operation. Registration will be issued on the basis of compliance with Safety Orders of this Section and with the additional criteria contained in Appendix A.~~

~~(b) Radio equipment shall not be used without displaying the required registration. Registration must be prominently displayed on the receiver of the unit. On radio-controlled carriages, registration must be prominently displayed on the transmitter in the yarder.~~

~~(c) Applicants for registration shall submit the following information on the equipment to the Division of Occupational Safety and Health:~~

~~(1) Assigned radio frequency.~~

~~(2) Manufacturer of the unit.~~

~~(3) Serial number of the receiver.~~

~~(4) The signaling format and codes (i.e., tone frequencies in the case of tone coded systems).~~

~~(5) Intended use or function of the unit.~~

~~(6) Designated area in which the equipment will be used.~~

~~(d) Before moving any unit from one assigned area to another, new registration shall be secured from the Division. The provisions of Section 6272(c)(1) and (2) shall also apply in moving a radio control from one assigned area to another.~~

~~(e) No individual or company may reserve tone frequencies within an area more than 30 days before the frequencies will be put into use. Users shall notify the Division within 30 days after the radio-signaling device is:~~

~~(1) Permanently retired (in what manner).~~

~~(2) Sold (to whom).~~

~~(3) Stolen.~~

~~(f) Additional systems shall be certified in advance as spares, providing they are used only as replacements for malfunctioning systems during the time required to repair the original equipment.~~

~~(g) Each radio receiver shall have its tone frequencies in hertz (CPS), the manufacturer's serial number, and the assigned radio frequency permanently indicated on the outside of the case. When the duration or width of the tone frequencies performs a function, the tone duration/width shall also be permanently indicated on the outside of the case.~~

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Amend Section 6272 to read (continued):

~~(h)~~(a) Single tone frequency shall not be used on radio equipment designed to initiate a whistle or other audible signal, or to activate or control any machine, material-handling device, or other device hazardous to workers.

~~(i)~~(b) All adjustment, repair, or alteration of radio signaling devices shall be done only by or under the immediate supervision and responsibility of a person holding a first or second class commercial radio operator's license, either radio telephone or radio telegraph, issued by the Federal Communications Commission. All replacements parts shall be of such quality as to cause the unit to meet the minimum performance specifications outlined in Appendix A, Radio Control Signaling Devices.

~~(j)~~(c) Equipment or machines being controlled by radio control devices shall be designed and built to fail/safe or stop in case of failure of the radio control device.

~~(k)~~(d) When interference, overlap, fadeout, or blackout of radio signals is encountered, ~~the~~ use of the radio control device shall be immediately discontinued, and not resumed until the source of trouble has been detected and corrected.

~~(l)~~(e) Two transmitters shall be in the visual or vocal vicinity of the rigging crew at all times. Spare transmitters shall be guarded against accidental activation.

~~(m)~~(f) Two or more receivers on the same radio frequency with the same tone coding frequency is prohibited.

EXCEPTION: A second receiver may be used for monitoring provided it does not actuate or interfere with the primary receiver.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 6281 to read:

§6281. Bucking.

(e) Spring poles, limbs and trees under stress shall be cut so that an employee is clear when the tension is released.

NOTE: Authority cited: Section, 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 6282 to read:

§6282. Ripping Logs.

(a) Logs shall be securely chocked or strapped before they are ripped.

(b) If workers walk the log to rip it, sufficient holding wood shall be left or other positive means to prevent splitting before they dismount to complete the cut.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 6283 to read:

§6283. Portable Chain Saw Operations.

(m) Every employer shall instruct and enforce a safe practice procedure including the rules listed below:

- (1) Inspect the saw daily to assure that all handles and guards are in place and tight, all controls function properly, and the muffler is operative.
- (2) Properly instruct operators on safe operation and adjustment.
- (3) Always keep a firm grip on the saw.
- (4) Fuel the saw only in conditions not conducive to fire hazards.
- (5) Start the saw at least 10 feet away from fueling area.
- (6) Start the saw only when firmly supported.
- (7) Do not use ~~engine~~ chain saw or other engine fuels for starting fires or for use as a cleaning solvent.

Exception: When approved by the fire authority, diesel fuel may be used to start warming fires provided the employer assures that in the particular situation it does not create a hazard for employees.

- (8) Use proper methods to avoid kickbacks.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 6290 to read:

§6290. General.

(a) Rigging and all parts thereof shall be of design and application to safely withstand all expected or potential loading to which it will be subjected.

(b) Chokers shall be at least 1/8-inch smaller than the line to which they are attached.

(c) Rigging shall be arranged and operated so that it or its loads will not be damaged by fouling, rubbing, or sawing against lines, straps, blocks, or other equipment.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section, 142.3, Labor Code.

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Amend Section 6295 to read:

§6295. Anchoring.

(a) Skylines shall be hung in a tree jack or block and securely anchored to a stump, deadman or the base of a live tree outside the work area that would not reach the work area if pulled over. All other rigging shall be anchored to stumps.

(j) Safety holdbacks, such as twisters, shall be used when necessary for the safety of workers.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 6328 to read:

§6328. Yarding and Swinging.

~~(k) Logs shall not be landed or moved into the landing while chasers are working on other logs at the spar tree or spar.~~

~~(k)(4)~~ Logs shall not be landed at the ~~spar tree~~ landing chute until all workers and equipment are in the clear.

~~(l)(m)~~ Chasers shall be sure that logs are securely landed before approaching them to unhook chokers.

~~(m)(n)~~ Towed equipment, such as but not limited to, skid pans, pallets, arches, and trailers, shall be attached to each machine or vehicle in such a manner as to allow a full 90 degree turn; to prevent overrunning of the towing machine or vehicle; and to assure that the operator is always in control of the towed equipment.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 6329 to read:

§6329. Landings and Loading Areas.

(e) Space for truck turn-around shall be provided as close as possible to the landing ~~and no further than 600 feet.~~

(f) Where necessary, sufficient brow logs or blocking shall be installed to prevent logs from rolling onto the landing.

(g) All personnel shall stand clear of the hazardous area while logs are being hoisted, or while logs or loads are being shifted on ~~cars or~~ trucks. The hazardous area is the area between the deck or decks from which the logs are being removed and the area over which the logs are carried to place them on the log truck, as well as along both sides of log trucks behind the cab guard.

(h) Logs shall not be swung over employees, tractors, or truck cabs while employees are in the cabs.

~~(i) Logs shall not be landed at cable system landings while trucks are being spotted.~~

~~(i)(j)~~ Logs shall be loaded so that the load is balanced as near as possible, over the center plates of the ~~cars or~~ trucks.

~~(j)(k)~~ Logs shall be loaded to minimize any crowding which causes excessive strain on the wrappers, choke chains, or stakes.

~~(k)(l)~~ Logs shall be loaded so that there are no projecting large knots or limbs to impair side clearance.

~~(l)(m)~~ When operating in landing areas, loading machines used to sort and deck logs and/or load log trucks shall be equipped with an automatically operating warning device which will activate any time the loading machine is travelling in a direction opposite to that which the operator faces.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Appendix A, Radio Control Signaling Devices to read:

Appendix A
Radio Control Signaling Devices

~~Registration for radio-activated signaling or machine functions in cable logging operations is issued by the Division of Occupational Safety and Health.~~

Radio equipment at cable logging sites which is used primarily for voice communication shall be assigned a frequency separate from radio equipment used primarily to: initiate whistles, and other audible signaling devices; control any machine, material handling device, or other equipment hazards to workers.

~~Any radio frequency licensed by the Federal Communications Commission for voice transmission and tone coded control of signal and/or machine functions will be registered contingent on its compatibility with other systems in use, and upon compliance with all of these Orders and criteria listed in the Appendix.~~

Frequencies at 72.44, 72.48, 72.52, 72.56, 72.60, 75.44, 75.48, 75.52, 75.56, 75.60, 154.57 and 154.60 megahertz (MHz) are to be retained for channels using coded modulation to provide secure signalling for the purpose of activating signalling devices and machine functions in cable logging with a maximum one half watt output. Voice transmission on these radio frequencies will be limited to emergency situations only.

~~Radio frequencies licensed by the Federal Communications Commission on 148 to 300 MHz channels will be issued registration contingent on compliance with other sections of these Orders, and upon certification of frequency and coding compatibility with other coded systems.~~

~~Radio frequencies licensed by the Federal Communications Commission in the Ultra High Frequency (UHF) channels 300 to 3000 MHz on low power (2 watt output power) for the use of voice and coded control of signal and/or machine functions in the logging industry, will be registered only upon certification of frequency compatibility with other coded systems in use, and upon compliance with other sections of these Orders.~~

All radio devices ~~manufactured after the effective date of these Orders~~ that are tone coded for signal and/or machine functions or used for voice communications, shall meet or exceed the following requirements, specifications, tolerances and tests:

(1) Transmitters and receivers shall be Federal Communications Commission (FCC) type accepted and certified.

(2) Radio coded systems which activate audible signals or machine functions shall transmit and decode only on authorized codes.

(3) The receiver tone signaling threshold sensitivity shall be .35 micro-volt or better to initiate the signal function.

(4) The receiver spurious attenuation shall be no less than 50 dB.

(5) The receiver selectivity shall be more than 60 dB at the adjacent channel.

(6) In tone coded systems the receiver decode tone frequency stability shall not exceed plus or minus (±) .006 (.6 percent) of the assigned tone frequency.

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Amend Appendix A, Radio Control Signaling Devices to read (continued):

(7) In tone coded systems, the transmitter encoder tone frequency stability shall not exceed plus or minus (\pm) .006 (.6 percent) of the assigned tone frequency.

(7.5) In systems which use coded modulation other than tone coding, tolerances on modulation/code parameters shall be such as to guarantee security against code falsing and/or interference with systems of the same or different coding format.

(8) Radio systems (transmitters and receivers) shall operate in accordance with the specifications over an ambient temperature range of minus 30°C- to plus 60°C.

(9) Switches of transmitters used to send whistle signals or activate equipment associated with high lead, slackline, or skidder systems of logging shall be designed so that two buttons, motions, or a combination of these are required simultaneously to cause activation of the system. Arrangement of the activating switches shall be such that the operator can transmit signals easily by the use of either hand, but cannot easily activate the transmitter accidentally.

(10) All receivers intended to be mounted on or in the yarder or similar equipment shall continue to operate satisfactorily and shall suffer no mechanical damage after being subjected to a series of no less than 10 impacts in each plane (total 30). Each impact shall be no less than 20 g acceleration.

(11) All receivers intended for mounting in the yarder or similar equipment, and all portable transmitters, shall continue to maintain specified mechanical and electrical performance during and after being subjected to vibration of the magnitude and amplitude as prescribed in ~~Paragraph 22 of EIA RS-204-A~~ ANSI/TIA/EIA-603-1992, Section 3.3.4, Vibration Stability, which is hereby incorporated by reference.

(12) All portable transmitters shall continue to maintain specified mechanical and electrical performance after being subjected to the following test:

The equipment shall be dropped once on each of 5 surfaces from a height of 4 feet.

(13) At least one model of each radio system shall be tested, and certified that it meets or exceeds the minimum requirements for performance specified in this Appendix. The model shall be selected at random from stock. ~~A copy of the performance report shall be signed by whoever tested the unit, and submitted to the Division.~~

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.